

REMARKS

Claims 1-17 are currently pending in this application.

Claim Rejections Under 35 U.S.C. §102

Claims 1-2, 4-6, 8-13, and 15-17 were rejected under 35 U.S.C. §102(b) as being anticipated by Lewis et al. (U.S. Patent No. 6,775,667).

Lewis discloses a method and system for providing a hardware sort for a large number of items. The sort is based on a plurality of values of a key (column 5, lines 9-10). An exemplary key value comprises the value of a pixel polygram (column 3, lines 15-16; column 10, lines 60-63). The system includes a plurality of stages, which include merge/sort switches coupled between the stages, and first-in-first-out (FIFO) buffers in each stage (column 5, lines 8-30; figure 3A). Each merge/sort switch merges the contents of FIFOs from the previous stage and provides groups of the sorted items to FIFOs of the next stage (column 7, lines 37-45). Each merge/sort switch includes a merge/sort block and a distributor. The merge/sort block merges the contents of two FIFOs from the previous stage and ensures that the merge contents are in order. The distributor distributes the output of the merge/sort block to the two FIFOs in the next stage, providing groups of sorted items alternatively to the FIFOs in the next stage, (column 7, lines 47-55).

In contrast to Lewis, each basic cell in the claimed invention includes a data comparator and a data selector, not the merge/sort switches (which include the merge/sort blocks and the distributors) and the FIFO buffers as in Lewis. In the claimed invention,

contrary to Lewis, in each basic cell, the data comparator compares pieces of input data with each other, outputting the smaller and greater ones to output terminals, and the data selector carries out the selecting process, generating a select signal at an output terminal as a result of the comparison. The select signal is supplied to a control terminal of the data selector, and input data is selectively passed on to output terminals responsive to the select signal at the control terminal of the data selector (application, page 15, lines 20-24; page 16, lines 7-9; page 24, lines 19-21; page 25, line 24 – page 26, line 7). Also, the invention herein as claimed sorts based on the magnitude of pieces of input data, not based on the values of the key as in Lewis. In further contrast, nowhere in Lewis is there a disclosure as claimed herein that the total number of basic cells are equal to the number of combinations of pieces of input data to be compared, which enables the total number of basic cells to be equal to the minimum number of theoretically required basic cells (application, page 23, line 21- page 24, line 2).

Claim Rejections Under 35 U.S.C. §103

Claims 3, 7, and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lewis in view of Nakamura (U.S. Patent No. 5,392,366). Since these claims depend directly or indirectly from independent claims, it is submitted that they are patentable in view of the patentability of the independent claims as set forth above.

Dependent Claims

In view of the patentability of the underlying independent claims over Lewis as set forth above, it is submitted that the claims depending therefrom are likewise patentable.

CONCLUSION

It is submitted in view of the above that there is no teaching or suggestion of applicant's invention as claimed in the claims submitted herewith, within the scope of the disclosure of the cited references, without extensive modification and the exercise of inventive talent.

In light of the above amendments and remarks, applicant submits that the application is in condition for allowance, and requests that it be passed to issue. If there are any issues which can be discussed in a telephone interview, the Examiner is requested to contact applicant's attorney at (310) 242-2732.

Respectfully submitted,

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